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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,216

09/01/2005

Ping Wang

089498-0436

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39905

7590

11/04/2008

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EXAMINER

KAM, CHIH MIN

ART UNIT

PAPER NUMBER

1656

MAIL DATE

DELIVERY MODE

11/04/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/519,216</p>	<p><b>Applicant(s)</b> WANG ET AL.</p>	
	<p><b>Examiner</b> CHIH-MIN KAM</p>	<p><b>Art Unit</b> 1656</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 03 October 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: 4,5,10,12,14 and 16-19.  
Claim(s) objected to: 3.  
Claim(s) rejected: 1,6-9,11,13 and 15.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Chih-Min Kam/  
Primary Examiner, Art Unit 1656

Continuation of 5. Applicant's reply has overcome the following rejection(s): The rejection of claims 3 and 5 under 35 U.S.C. 102(b) as being anticipated by Tennent et al. (U.S. Patent 6,099,960).

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's reply does not overcome the rejection of claims 1, 8, 9, 11 and 13 under 35 U.S.C. under 35 U.S.C. 102(b) as being anticipated by Tennent et al. (U.S. Patent 6,099,960); and the rejection of claims 1, 6-9, 11, 13 and 15 under 35 U.S.C. 102(b) as being anticipated by Iyer et al. (Abstract of Papers, 221<sup>st</sup> ACS national meeting, San Diego, CA, United States, April 1-5, 2001 ANYL-035). See paragraphs 7 and 8 of Office Action dated 6/3/08).

Regarding the rejection of claims 1, 3, 5, 8, 9, 11 and 13 under 35 U.S.C. 102(b) as being anticipated by Tennent et al., applicants indicate claim 5 should not be rejected since claim 5 depends from claim 4, which is not rejected. Tennent et al. discloses a nanofiber comprising carbon and the nanofiber is functionalized so that it may immobilize active groups such as enzymes, antibodies or antigens. However, the functionalization of the carbon nanofibers of Tennent et al. occurs only on the surface thereof. On the other hand, claims 1 and 11 recite the at least one functional group to which a protein is attached is contained within a portion of the fiber-forming material. The persons of ordinary skill in the art would understand the words "on" and "contained within" have marked different meanings. Thus, Tennent et al. fails to disclose each and every element of the claimed invention, and the rejection should be withdrawn (pages 7-8 of the response).

Applicants' response has been fully considered, regarding claim 5, the argument is persuasive, thus the rejection of claim 5 is withdrawn. However, regarding claims 1, 8, 9, 11 and 13, the arguments are not persuasive because of the following reasons. While claims 1 and 11 recite the at least one functional group to which a protein is attached is contained within a portion of the fiber-forming material, the claims do not define "the portion", thus, the portion can be the portion on the surface of the fiber-forming material. Thus, the at least one functional group that is contained within a portion of the fiber-forming material can be on the surface of the carbon nanofibers as taught by Tennent et al. Therefore, the rejection of claims 1, 8, 9, 11 and 13 is maintained.

Regarding the rejection of claims 1, 6-9, 11, 13 and 15 under 35 U.S.C. 102(b) as being anticipated by Iyer et al., applicants indicate Iyer et al. discloses immobilization of enzymes onto surface supports that are formed on the surface of a cellulose nanofibers with carbon immobilization matrices. On the other hand, claims 1 and 11 recite the at least one functional group to which a protein is attached is contained within a portion of the fiber-forming material. The persons of ordinary skill in the art would understand the words "on" and "contained within" have marked different meanings. Thus, Iyer et al. fails to disclose each and every element of the claimed invention, and the rejection should be withdrawn (pages 8-9 of the response).

Applicants' response has been fully considered. However, the arguments are not persuasive because of the following reasons. While claims 1 and 11 recite the at least one functional group to which a protein is attached is contained within a portion of the fiber-forming material, the claims do not define "the portion", thus, the portion can be the portion on the surface of the fiber-forming material. Thus, the at least one functional group that is contained within a portion of the fiber-forming material can be on the surface of the cellulose nanofibers as taught by Iyer et al. Therefore, the rejection of claims 1, 6-9, 11, 13 and 15 is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Bragdon can be reached at 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D.  
Primary Patent Examiner

CMK  
October 28, 2008